

## THE WEATHER OF THE ATLANTIC AND PACIFIC OCEANS

(By the Marine Division, W. F. McDonald in charge)

## NORTH ATLANTIC OCEAN

By W. F. McDONALD

*Atmospheric pressure.*—September, 1932, was characterized by atmospheric pressure somewhat below normal over most of the North Atlantic, as shown by Table 1, although it averaged slightly above normal from Newfoundland to the Azores. During a few days only, near the middle of the month, were high-pressure conditions dominant over middle latitudes from the American coast to Europe. The usual Atlantic HIGH was for the most part absent, or broken into two or more shifting areas, one of which showed considerable persistence near the Azores.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure (sea level) at selected stations for the North Atlantic and its shores, September, 1932

Stations	Average	Departure	Highest		Lowest	
			Inches	Date	Inches	Date
Julianehaab, Greenland.....	29.96		30.50	19,20,21	29.37	8
Reykjavik, Iceland.....	29.67	-0.05	30.24	26	28.77	1
Lerwick, Shetland Islands.....	29.66	-0.18	30.26	16	28.98	11
Valencia, Ireland.....	29.92	-0.07	30.50	28	29.31	8
Lisbon, Portugal.....	29.99	-0.03	30.21	17	29.67	20
Madeira.....	30.00	-0.02	30.16	27	29.58	17
Horta, Azores.....	30.19	+0.02	30.38	27	29.84	20
Belle Isle, Newfoundland.....	30.02	+0.12	30.40	17	29.54	8
Halifax, Nova Scotia.....	30.02	-0.03	30.42	14	29.72	24
Nantucket.....	30.03	-0.05	30.44	26	29.26	17
Hatteras.....	30.05	-0.01	30.38	26	29.37	16
Bermuda.....	30.01	-0.07	30.22	13, 27	29.66	8
Turks Island.....	29.92	-0.06	30.04	12	29.68	3
Key West.....	29.91	-0.03	30.05	18	29.74	6
New Orleans.....	29.95	-0.03	30.10	27	29.65	1
Cape Gracias, Nicaragua.....	29.84	-0.07	29.90	16	29.76	30

NOTE.—All data based on a. m. observations only, with departures compiled from best available normals related to time of observations, except Hatteras, Key West, Nantucket, and New Orleans, which are 24-hour corrected means.

*Cyclones and gales.*—There was a noteworthy increase in storminess as compared with preceding summer months, especially over the western portion of the Atlantic, where more than the average number of gales were reported in September. Hurricane winds occurred in connection with only two of the storms of tropical origin (discussed on pp. 177-179), but the area from the West Indies northward past Bermuda was repeatedly disturbed by a succession of low-pressure areas some of which were attended by moderate gales.

Several lows originated in mid-Atlantic, between Bermuda and the Azores, one of which lasted more than 10 days, during which time it wandered on an irregular path from its origin, on the 17th, east of Bermuda, northward over the Canadian Maritime Provinces to Greenland. Within the same interval, a vigorous low-pressure area developed between the Azores and the Iberian Peninsula and, as a result, gales were most widespread over the main trans-Atlantic steamer routes on the 19th and 20th.

*Tropical disturbances.*—Four tropical storms occurred in September, as described in detail on pp. 177-179 in this issue of the REVIEW, and as indicated by the storm tracks shown on Chart VIII.

A disturbance that originated near the Virgin Islands at the close of August became the major storm of September. It could be followed for almost three weeks during which the center traveled to the Bahama Islands, recurved and moved thence northeastward to Iceland and on into the Arctic Ocean past North Cape. This storm continued with hurricane intensity until it passed north beyond latitude 40°, and was attended by gales throughout its history.

While this storm threatened the Florida east coast, good seamanship dictated caution in pursuing courses southward through the Straits, and many ships gathered north of the Bahamas, where sea room is ample, to await developments. The sharp recurve of the disturbance, 200 miles east of the Florida coast, took the center northward through the midst of the collected shipping, but, so far as known, no ship or life was lost at sea, and damage to shipping was relatively slight. Good seamanship, aided by the radio weather service, must be largely credited with this favorable outcome.

Charts IX, X, and XI show this storm on September 3 (shortly after its beginning), September 7 (just after recurve), and September 14 (when the center was approaching Iceland).

Chart IX also shows the track and continuing low-pressure area of the hurricane which passed over Pensacola at the end of August, and Chart XI reveals a disturbance, in the northeast Gulf of Mexico, that originated five days earlier near Frontera, Mexico. Two other tropical disturbances occurred in September, one affecting the Gulf of Mexico (September 18-19) and the other in the West Indies and northern Caribbean Sea (September 26-October 1).

Each of the three disturbances last mentioned produced some loss to shipping. The two storms on the Gulf of Mexico, though neither attained hurricane intensity, caused heavy weather that resulted in the loss of an oil barge in tow in the northwest Gulf on September 11, and of a dredge in tow in the northeast Gulf on September 18. The intense but relatively small hurricane that passed over Puerto Rico on the night of September 26-27, caused loss of a large schooner in San Juan harbor and other damage to wharves and shipping in Puerto Rican ports.

*Fog.*—The number of days with fog was somewhat less than usual over the ocean as a whole, and the number of days on which it was reported from different sections is as follows: Over the Grand Banks, 6 to 8 days; along the American coast, between the fortieth and fiftieth parallels, 2 to 9 days; over the steamer lanes between the tenth and forty-fifth meridians, 1 to 5 days; and along the coast of Europe, 2 to 3 days.